

We claim:

1. A process for burning in a combustion chamber an exhaust gas containing oxygen and a combustible component, which exhaust gas originates from the heterogeneously catalyzed gas-phase oxidation of an inorganic or organic compound, which comprises heating the exhaust gas to a temperature in the range from 200°C to a temperature which corresponds to the hottest temperature in the heterogeneously catalyzed gas-phase oxidation and is above 200°C, and feeding the exhaust gas at this temperature to the burner head.
2. A process as claimed in claim 1, wherein the exhaust gas is heated to a temperature in the range from 300°C to a temperature which corresponds to the hottest temperature in the heterogeneously catalyzed gas-phase oxidation and is above 300°C, and the exhaust gas is fed at this temperature to the burner head.
3. A process as claimed in claim 1, wherein the exhaust gas is heated to a temperature in the range from 50°C below the temperature corresponding to the hottest temperature in the heterogeneously catalyzed gas-phase oxidation to a temperature corresponding to the hottest temperature in the heterogeneously catalyzed gas-phase oxidation and the exhaust gas is fed at this temperature to the burner head.
4. A process as claimed in claim 1, wherein the heterogeneously catalyzed gas-phase oxidation of the inorganic or organic compound is carried out in a range below the lower explosive limit.
5. A process as claimed in claim 1, wherein the exhaust gas is heated via a heat exchanger which is heated by the flue gas being liberated by the combustion.
6. A process as claimed in claim 5, wherein the temperature in the exhaust gas is controlled via the ratio between the exhaust gas stream flowing through the heat exchanger and an exhaust gas stream flowing through a bypass.
7. A process as claimed in either of claim 5 or 6, wherein the temperature at the outlet of the heat exchanger is controlled via the volumetric flow rate of the flue gas flowing through the heat exchanger.
8. A process as claimed in claim 1, wherein an exhaust gas is used which originates from the heterogeneously catalyzed gas-phase oxidation of n-butane and/or n-butenes to maleic anhydride, of o-xylene to phthalic anhydride, of propene to acrylic acid, of isobutene to methacrylic acid, of 1,2-ethanediol to glyoxal and/or of ethene to ethylene oxide